

A METHOD AND APPARATUS FOR SELECTING CARRIERS

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*MDJ
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Field of the Invention

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This invention relates to a method, apparatus and subscriber unit for selecting carriers to be measured by a subscriber unit served by a cellular communication system.

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Background of the Invention

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In a cellular communication system, each of the subscriber units (typically mobile stations, communication terminals, wireless devices, user equipment, remote terminals etc) communicates with a fixed base station. Communication from the subscriber unit to the base station is known as uplink, and communication from the base station to the subscriber unit is known as downlink. The total coverage area of the system is divided into a number of separate areas or cells, each predominantly covered by a single base station. The cells are typically geographically distinct with an overlapping coverage area with neighbouring cells. FIG. 1 illustrates a cellular communication system 100. In the system, a base station 101 communicates with a number of subscriber units 103 over radio channels 105. In the cellular system, the base station 101 covers users within a certain geographical area 107, whereas other geographical areas 109, 111 are covered by other base stations 113, 115. Some overlap areas 117 can be covered by more than one cell.

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As a subscriber unit moves from the coverage area of one cell to the coverage area of another cell, the communication link will change from being between the subscriber unit and the base station of the first cell, to being between the subscriber unit and the base station of the second cell. This is known as a handover. Specifically, some cells may lie completely within the coverage of other larger cells.

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All base stations are interconnected by a fixed network. This fixed network comprises communication lines, switches, interfaces to other communication networks and various